DOCUMENT RESUME

ED 231 158 EC 152 603

AUTHOR Donahue, Mavis; Bryan, Tanis
TITLE Conversational Skills and Modeling in Learning Disabled Children.
PUB DATE Oct 82
NOTE 48p.; Paper presented at the Annual Boston University Conference on Language Development (7th, Boston, MA, October 8-10, 1982).
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Communication Skills; Elementary Education; *Interpersonal Competence; *Learning Disabilities; Males; *Modeling (Psychology); Self Concept; Verbal Communication

ABSTRACT

The effects of modeling on conversational skills and on metaconversational knowledge of 52 learning disabled and normally achieving boys (grades 2 to 8) were investigated. Ss listened to one of two brief audiotapes: (1) a dialogue of a child interviewer modeling open ended questions, conversational devices, and contingent comments and responses; or (2) a monologue presenting only the interviewee's responses. Each S was then videotaped interviewing a classmate. Their metaconversational knowledge was also assessed. Although the dialogue model increased LD Ss' production of open ended questions and comments, these strategies appeared more difficult for their listeners to understand and expand on. Results of metaconversational responses suggest that LD Ss are aware of their difficulties in conversational interaction. (Author/CL)

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ED231158

Conversational Skills and Modeling in Learning Disabled Children

Mavis Donahue and Tanis Bryan

University of Illinois at Chicago

Address for Correspondence: Mavis Donahue, College of Education, Box 4348, University of Illinois at Chicago, Chicago, IL 60680

EC 157603

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ABSTRACT

Learning disabled children in the role of interviewer have been found to be less skilled than nondisabled children at initiating and sustaining a dialogue with a classmate. The purpose of this study was to test the effects of modeling on these conversational skills and on their metaconversational knowledge. LD and nondisabled boys in grades 2 through 8 listened to 1 of 2 brief audiotapes: a dialogue of a child interviewer modeling open-ended questions, conversational devices and contingent comments and responses; or a monologue presenting only the interviewee's responses. Each subject was then videotaped interviewing a classmate. Children's metaconversational knowledge was also assessed. Although the dialogue model increased LD children's production of open-ended questions and comments, these strategies appeared more difficult for their listeners to understand and expand on. Results of the metaconversational responses suggest that LD children are aware of their difficulties in conversational interaction. Implications for the assessment and remediation of conversational skills are discussed.

The increasing evidence that many children with learning disabilities manifest deficits in various aspects of social (e.g., Bryan, 1974, 1976; Bryan & Bryan, 1978; Scranton & Ryckman, 1979; Bachara, 1976) as well as linguistic knowledge (e.g., Denckla & Rudel, 1976; Vogel, 1975; Wiig & Semel, 1976, 1980) has led several researchers to examine the implications of these deficits for the acquisition of pragmatic competence, i.e., the rules governing socially appropriate speech (Donahue, Pearl, & Bryan, 1983). Compared to normally achieving agemates, LD children have been found to be less tactful (Pearl, Donahue, & Bryan, 1981a), less persuasive (Bryan, Donahue, & Pearl, 1981; Donahue, 1981a), and less skilled at producing speech which is adapted to the listener's perspective (Bryan & Pflaum, 1978; Donahue, 1981a; Noel, 1980; Spekman, 1981). Further, they appear to have difficulty in playing an active role in conversation in that they rely on strategies for participating in talk which are less assertive (Bryan, Donahue, & Pearl, 1981; Bryan, Donahue, Pearl, & Herzog, 1981), and less effective at maintaining control of the conversation (Bryan, Donahue, Pearl, & Sturm, 1981) than those used by nondisabled children.

The pervasive nature of these pragmatic difficulties suggests that conversational skills should be a high priority for language intervention with LD children. These children are excellent candidates for a study of conversational training because, in some ways, they can be characterized as having specific conversational deficits; there is some evidence that they differ from normal children even in conversational situations where their syntactic-semantic repertoire appears to be adequate. Instead, perhaps due to LD children's

history of difficulty in social interaction, their performance seems to reflect differences in their interpretation of the social rules which govern how and when to use their language ability. For example, in a referential communication study where children played the listener role, LD children were less likely than normally achieving children to request clarification of ambiguous messages provided by an adult experimenter, even though they had the linguistic skills necessary to identify inadequate clues and to produce requests for more information (Donahue, Pearl, & Bryan, 1980). A follow-up study suggested that these findings were due to LD children's interpretation of social rules governing talk with adults, in that they over-estimated the adult's ability to provide informative messages (Donahue, 1981b), and therefore assumed that the communicative breakdown was their own fault. Further, LD boys whose range of strategies for conveying politeness in requests was equivalent to those of normal boys still were less able to appropriately vary their requests as a function of listener differences (Donahue, 1981a).

Further evidence that LD children's conversational style may reflect their perceptions of their social position is provided by two peer interaction studies in which they were found to adopt a rather deferential role. Compared to nondisabled children, LD children in a group decision-making task were more likely to agree and less likely to disagree with the other children's opinions and less likely to argue for their own positions or to attempt to hold the conversational floor (Bryan, Donahue, & Pearl, 1981). In another study of children's ability to initiate and sustain a dialogue, LD children placed in the role of "talk show host" were less able to maintain control of the conversation through successive questioning, produced fewer open-ended questions, and

elicited fewer elaborated responses from their guests (Bryan, Donahue, Pearl & Sturm, 1981). Although neither study provides any means of unraveling the contributions of language facility vs. social perception to this conversational style, it is not obvious that more linguistic sophistication is required for disagreeing than agreeing with one's listener, or for asking open-ended questions rather than other question types.

The need for conversational skills training is clearly not limited to the learning disabled population. It is becoming apparent that attempts to increase the syntactic and semantic repertoire of many language-handicapped children must also incorporate techniques to enable them to use their language skills appropriately in conversational contexts (Hart & Rogers-Warren, 1978; Rees, 1978; Lucas, 1980). However, there are virtually no language intervention studies using group design which focus on conversational skills. In fact, the typical language training study fails to even examine whether the subjects' newly acquired language skills generalize to conversational settings; the few studies which do assess children's post-training performance in settings other than the training situation find little evidence that such generalization occurs (Leonard, 1981).

In light of this need to place more emphasis on the training of language in more naturalistic contexts, one approach which seems to be particularly promising is modeling. This technique reconstructs the natural processes by which children acquire language, in that the subject observes another person producing examples of target structures and induces the appropriate rule (Bandura, 1977; Whitehurst & Vasta, 1975). Modeling has been demonstrated to be an effective paradigm for increasing the use of certain syntactic structures by both normal (see Rosenthal & Zimmerman, 1978 for a review of this

literature) and language handicapped children (Leonard, 1975; Courtright & Courtright, 1976, 1979; Wilcox & Leonard, 1978; Prelock & Panagos, 1980). In the typical procedure, the child is instructed to listen carefully while an adult (the model) describes pictures with sentences containing the target syntactic structure, e.g. , the auxiliary "is", prepositional phrases, passives. When the child is then asked to describe the same or novel pictures, the frequency of use of the structure in question is examined relative to a baseline measure.

The success of this procedure is attributed to the explanation that, through observation, children abstract a grammatical rule which can then be applied to novel content, rather than merely producing an exact imitation of the modeled sentences. This claim is confirmed by three studies (Courtright & Courtright, 1976, 1979; Prelock & Panagos, 1980) which compared the effectiveness of modeling to "mimicry" (the exact and immediate imitation of each sentence) and found modeling to be the superior technique. In addition, Prelock & Panagos (1980) found that moderately mentally retarded children in the modeling condition were more likely to generalize their new skills to a free play situation than were subjects in the mimicry condition. The authors suggest that modeling may be a training technique which more closely resembles spontaneous conversational interaction and therefore may be more conducive to the transfer of skills to unstructured settings.

Although there are no group-design investigations which examine the usefulness of modeling to enhance conversational skills, several studies using single - subject designs have included modeling as one component of their instructional package for conversational training in handicapped children (e.g., Clark, Caldwell, Caldwell & Christian, 1979; Kelly, Furman, Phillips, Hathorn, & Wilson, 1979; Minkin et al., 1976). Further evidence that modeling may be a useful

technique to facilitate conversational skills in children with learning and language problems is provided by several studies using models to train normally developing children to be more effective speakers and listeners on referential communication tasks (Shantz & Wilson, 1972). Three studies examining 6-year-old children's ability to produce informative referent descriptions after listening to good adult and peer models found that the subjects improved their communicative effectiveness (Whitehurst, 1976; Sonnenschein & Whitehurst, 1980; Whitehurst & Merkur, 1977). Similarly, even young children playing the listener role were trained to request clarification of ambiguous messages after exposure to an adult model (Ironsmith & Whitehurst, 1978; Cosgrove & Patterson, 1978).

Although modeling has been used to teach children novel linguistic rules (Rosenthal & Zimmerman, 1978), the more usual explanation of the effectiveness of models in facilitating communicative skills in normal children has been that models merely "activate" or increase the frequency of use of skills which have already been acquired (Whitehurst & Vasta, 1975). For example, these researchers have claimed that even young children are capable of formulating informative descriptions of a referent, or of requesting more information from speakers who produce unclear messages; however, they often do not perceive the social situation as one in which these skills are necessary or relevant. Children's willingness to use the full range of their communicative skills may be influenced by their perceptions of the relative social status between them and their listeners. For example, Sonnenschein and Whitehurst (1980) found that children's beliefs about a model's competence affected whether they imitated her communication style. They improved their communicative efficiency after listening to both competent and incompetent peer encoders;

however, the subjects imitated an adult model even when her messages were incomplete or redundant. In a referential communication study where LD and nondisabled children described abstract shapes to adult listeners, children's responsiveness to indirect requests for clarification was examined (Pearl, Donahue, & Bryan, 1981b). Although all children were capable of formulating another description, their willingness to offer more information was related to the degree to which children believed themselves to be responsible for their own school and social failures, i.e., a measure of internal locus of control.

In light of these issues, an examination of the effects of modeling on LD children's conversational skills may be particularly insightful. If brief exposure to a model is effective in facilitating LD children's conversational performance, then it could be argued that these children may have already acquired the prerequisite linguistic and conversational skills, but may differ from nondisabled children in their perceptions of which social situations call for their use.

The purpose of this study, then, is to test the effects of modeling on the conversational competence of normally achieving and learning disabled children. In light of the complexity of the linguistic and social knowledge underlying successful conversational interaction, one difficult issue is what conversational behaviors to select as targets to be modeled. For this investigation, these decisions were based on the findings of the above-mentioned study of LD children's ability to initiate and sustain topics when interviewing a classmate (Bryan, Donahue, Pearl, & Sturm, 1981). LD and nondisabled children in grades 2 and 4 were asked to participate in a "television talk show" in which they played the role of talk show host interviewing a nondisabled classmate.

Although LD hosts contributed a similar proportion of talk as nondisabled hosts, their strategies for directing the conversation were less effective; specifically, they were less likely to maintain the dialogue through questioning and asked fewer open-ended questions. Further, compared to "guests" of nondisabled children, children interviewed by LD hosts produced fewer elaborative responses to questions and were more likely to take over the interviewing role.

Using the same paradigm, the current investigation asked LD and nondisabled boys in grades 2 through 8 to play the role of a talk show host by interviewing a normally achieving classmate. However, before the interview each subject listened to one of two audiotaped conditions, assigned at random: the intervention model consisted of a dialogue in which a child interviewer produced frequent open-ended questions, conversational devices, and contingent questions and comments; the control condition presented a monologue in which the subject heard only the responses of the interviewee, in order to control for topic availability. Transcripts of these videotaped interactions were coded according to a 3-turn sequence of (1) question type; (2) elaboration of the guest's response; and (3) the contingency of the interviewer's next conversational turn to his partner's response. It was hypothesized that LD boys in the monologue condition would be less likely to produce the target conversational behaviors than the nondisabled boys, but that the performance of the two groups in the dialogue condition would be similar.

Another issue which is relevant to this study is the virtually unexplored area of children's awareness of conversational rules. There are few studies of the development of metaconversational knowledge in normal or language-impaired populations. However, if LD children have internalized

conversational rules, but are unwilling to use them because of their interpretations of the social situation, it is important to examine whether their metaconversational knowledge differs from that of normally achieving children. Further, although modeling has been shown to be an effective means of changing children's linguistic and communicative behavior, there are no studies which tap how these interventions affect children's perceptions of the rules which they have demonstrated. Therefore, after the videotaping, each child was interviewed about his awareness of the skills underlying successful conversational interaction.

METHOD

Subjects

Subjects were boys in grades 2 through 8 who attended 6 schools in 2 districts in suburban Chicago. All were Caucasian, native speakers of English and from middle-class to upper-middle class backgrounds. The LD subjects were 52 boys selected from the school-identified LD population; namely, they had been diagnosed as LD by a psychoeducational team using school district criteria and were receiving resource room instruction on a regular basis from an LD specialist. Normally achieving boys who matched the LD children on age and grade were randomly selected as control subjects. None of these boys was receiving any special education services.

Scores from group-administered IQ and achievement tests were available from school files. Depending on the subject's school district and grade, IQ scores were based on the Otis-Lennon Mental Ability Test or the Short Form Test of Academic Aptitude. Achievement measures included the Metropolitan Achievement

Test and the California Test of Basic Skills. Children receiving an IQ of 90 or below on any IQ measure were not included in the study.

Approximately two weeks before the videotaping session, two subtests from the Clinical Evaluation of Language Functions (Semel & Wiig, 1980) were individually administered to children in grades 2 through 6 to assess oral language comprehension (Processing Word and Sentence Structure) and production (Formulated Sentence Scores). These children were also given the Peabody Picture Vocabulary Test (Dunn, 1965). Table 1 provides means and standard deviations for these measures for each group.

Within each grade and group (LD or NLD), subjects were randomly assigned to the modeling (Dialogue) or control (Monologue) condition. Boys who served as talk show guests were randomly drawn from the remaining normally achieving boys in the same classroom as the subjects.

Procedure

The task was carried out in a room in each school which had been set up to resemble a television studio. Two chairs were placed at an angle for easy conversation, facing a portable videotape camera and recorder. Two female research assistants who were unaware of the subjects' group status conducted the tasks; one presented instructions and conditions to the subjects (LD or NLD); the other gave instructions to the guests in a separate room and played the role of cameraperson. Therefore, the cameraperson remained blind to the subjects' experimental condition.

Each subject and the experimenter sat down at a table holding a audio-tape recorder, and the experimenter gave the following instructions:

> Today we're gonna put on a television talk show together. Have you ever seen a talk show on television, like Phil Donahue or Merv Griffin, or Mike Douglas? (Child's response) Okay, a talk show is when one person has his own TV show and he invites other people to come on the show and talk about different things. So we want you to pretend that you have your own talk show. We'll call it "THE (child's name) SHOW!" (Experimenter B) will be the camera person and another boy from your classroom will be your guest. And you two are going to talk with each other about television programs and movies. So you can ask questions and talk to each other about the movies and programs you really like and the shows you don't like, and so on. You can talk about the story, the actors, and things like that.
>
> Okay, any questions so far? (Child's response) Okay, since it's your show, you have to be in charge. You have to introduce your guest, and then get him to talk with you about television programs or movies. You'll have 4 minutes to talk with each other before it's time for a commercial. So it's your job to keep the show going until I tell you that the 4 minutes are up. Any questions? Now what are you supposed to do? (If the child failed to say that his job was to (1) put on his own talk show; (2) introduce his guest; (3) get the other child to talk, the experimenter repeated the directions.)

At this point each subject was instructed to listen to an audiotape presenting either the modeling or the control condition. Each audiotape was approximately 2 minutes long.

The modeling condition (called the Dialogue condition) consisted of an audiotape in which 2 12-year-old boys played the roles of a talk show host and his guest by reading the dialogue script presented in Appendix A. The boys had practiced the script several times so that they could read it in a natural, conversational fashion. In this script, the interviewer, or talk show host, modeled three conversational behaviors; (1) Process (open-ended) questions (e.g., What do you think about commercials; What things would you change to make it better?); (2) Conversational devices (e.g., "uh-huh, oh, yeah"); and (3) questions and comments which were Contingent on his guest's previous remark (e.g., "Why did you like that movie so much?", "Especially those boring ones

that they show over and over "). To insure that these typics would appear typical of children's conversations, the actual content of the questions and replies presented in the script was selected from transcripts of dialogues produced by normally achieving children who participated in the Bryan, Donahue, Pearl, & Sturm (1981) study.

The control condition subjects listened to an audiotape of a Monologue read by the same boy who played the guest role in the Dialogue condition. This monologue presented only the remarks of the guest, i.e., this condition provided no model for the interviewer or talk show host role, but the same propositional content was presented (See Appendix A). This control was necessary to insure that any effects of the experimental condition could be attributed to the modeling of conversational behaviors, rather than to the possibility that simply making topics available to the talk show host could influence the conversational interaction.

The instructions for the 2 conditions were:

Dialogue Condition:

> Now, before we begin, I want you to listen to this tape to help you do a good job of putting on a TV talk show. This is a tape of some other kids your age who put on a talk show. And the host did a <u>really good</u> job of getting his guest to talk. So I want you to listen to part of their tape so you can get some ideas about how to do it. Now listen carefully.

Monologue Condition:

> Now before we begin, I want you to listen to this tape to help you do a good job of putting on a TV talk show. This is a tape of some other kids your age who put on a TV talk show. And they did a <u>really good</u> job. So I want you to listen to some of the things that the guest said, so you'll get some ideas about what <u>your</u> guest might say. Remember, this is just what the talk show guest said. The things that the host said aren't on here. Now listen carefully.

Meanwhile, for both conditions, the cameraperson explained to each subject's classmate that his job was to play the role of a guest on a talk show, described as above. In addition, each guest was told:

> Now remember, (Host's name) has invited you to be his guest on his show because he has heard that you have interesting things to say. So be sure to talk a lot! Now what are you supposed to do? (If the child failed to say: (1) be a talk show guest; (2) talk about television and movies; and (3) talk a lot, the instructions were repeated.)

Finally, the cameraperson brought the guest back to the "TV studio" and directed the host and guest to sit in the chairs facing the cameras. She then reminded the children of their roles and promised that they would be able to watch their videotape if they put on a really good show. After turning on the camera, she began the program by announcing (with appropriate enthusiasm), "And now, here's the (Host's name) Show!!" After 4 minutes, according to a stopwatch, the cameraperson told the children that they had "5 more seconds" to end the conversation and then turned off the camera.

All children were shown approximately the last 2 minutes of their videotape and then individually interviewed about the experience. The talk show hosts were interviewed by the cameraperson, since she was unaware of their experimental condition, while the other experimenter interviewed the guests. Each child was asked the following two questions, and his responses were written down as exactly as possible.

(1) Now that you've been a host (or guest) on a talk show, suppose you were going to give advice to another kid to help <u>him</u> be a good talk show host. What things would you tell him? (After the child's response, the experimenter prompted by asking "Anything else?")

(2) Suppose you were going to give advice to another kid to help him be a good talk show guest. What things would you tell him? (With the same prompt as above.)

Coding of Conversational Behaviors

The discourse code developed for the Bryan, Donahue, Pearl & Sturm (1981) study was used to categorize children's conversational behaviors, with minor adaptations. Since the issue under investigation was the effect of a model on learning disabled children's ability to participate in the conversation, distribution of talk between partners was of interest. A turn was defined as all utterances produced by one speaker which were bounded on either side by another speaker's utterances. Each turn was then decomposed into statements representing conversational acts adapted from Dore, Gearheart & Newman (1978). In the case of lengthy narratives where several sentences were strung together by "and then", each t-unit, i.e., each independent clause with all its associated dependent clauses (Hunt, 1965), was categorized as a separate statement.

Given the "talk-show" format of the task, the natural unit of conversation, or "frame", appeared to be a three-turn sequence of (1) question, (2) response and (3) confirmation of the response. Since questioning and response strategies have been found to reflect social control between conversational partners (Corsaro, 1979; Gleason, 1973; Mishler, 1975), a coding system was designed to categorize discourse strategies for each position in this questioning sequence.

Question Type:

a) Choice questions solicit either-or judgments, e.g., "Do you go to a lot of movies?"

b) Product questions solicit information in response to

most "WH" interrogative pronouns, e.g., "Who's your favorite TV star?"

c) Process questions solicit extended descriptions or explanations, e.g., "Why did you like that movie, what was that show about?"

In the case of double question, e.g., "What's your favorite movie? Have you seen____?", the form of the second question was coded.

Responses to questions: Conversational turns which were responses to questions were coded as either Canonical, i.e., providing the minimal information requested by the question, or Elaborated, i.e., going beyond the literal meaning of the question to expand on the topic. Thus, a response was coded as elaborated depending on the question type which solicited it; canonical responses were "yes" or "no" to a Choice question, provided WH information to Product questions, and explanations to Process questions. For example, a canonical response to the Choice question "Do you like Mork and Mindy?" is "Yeah", whereas an elaborated response is "Yeah, I think Mork is so funny..."

Confirmations: A confirmation was defined, following Mishler (1975), as the first statement by the original questioner following the response to the question. Confirmations consisted of either Questions or Comments; the latter were defined as unsolicited utterances which paraphrase or interpret the previous speaker's turn or which offer an opinion, e.g., in response to a remark like "I like Happy Days and Alice", comments are "You must like comedies" or "They're my favorite too."

Further, confirmations were coded as either Contingent, i.e., they used the propositional content of the previous speaker's turn to extend or

continue the topic, or Noncontingent, i.e., they appeared unrelated to the previous remark by presenting a new proposition. For example:

Question: What's your favorite movie?

Response: Star Wars.

Confirmation: Why did you like it so much (contingent) vs

Who's your favorite TV star? (noncontingent)

Brief phrases with no real propositional content, but which served to acknowledge the previous speaker's turn (e.g., "yeah, oh, uh-huh, okay"), or brief repetitions of the previous turn, were categorized as Conversational Devices.

In addition, requests for clarification (e.g., "What?"; "Do you mean...?") could occur in any position of this 3-turn sequence.

Finally, each statement produced by the Host was coded according to whether it introduced one of the topics which were discussed on the modeling audiotapes, e.g., commercials, cartoons, and specific television shows or movies. One purpose for assessing the frequency with which modeled topics were mentioned was to determine whether the attempt to control for topic availability across the two conditions had been successful. Another aim was to examine the hypothesis that one source of LD children's difficulty in the interviewer role, aside from their conversational style, might be the inability to generate enough topics to maintain the flow of the conversation. If so, they might be more likely than nondisabled children to rely on the topics made available to them in the modeling tapes.

The videotaped interactions were transcribed and coded by research assistants unaware of the group or condition of the subjects. A research

assistant was trained until intercoder agreement with the first author was greater than 85% for each category. Intercoder agreement based on 15% of the transcripts, selected at random, was calculated at 93% (Range: 87 - 100).

Coding of Metaconversational Responses

A coding system for tapping children's meta-conversational ability was devised by sorting responses into 6 categories which seemed to be exhaustive yet conceptually discrete. Children's responses were decomposed into propositions representing units of "advice," usually phrased as imperatives, and classified into the following categories: (Numbers in parentheses represent the percentage of the total data which was assigned to that category.)

Quantity advice units related to the amount of talk shared, e.g., "Talk a lot, ask a lot of questions, give long answers. (22.13%)

Quality advice units were those which applied to the propositional content of the topics discussed, e.g., "Ask good questions, give interesting answers, talk about movies that you like, don't be boring." (24.15%)

Advice about Preparation suggested ways of being prepared for the conversation, e.g., "Think of some questions ahead of time, watch talk shows on TV, rehearse." (13.03%)

Fluency statements provided strategies for maintaining the smooth flow of the dialogue, e.g., "Don't stutter, pause or say "umm", don't crack up, don't talk too fast, speak up." (11.45%).

Affective advice dealt with the emotional states of the conversational partners, e.g., "Relax, act natural, try hard, don't get nervous." (9.68%)

Suggestions for improving the guest's and host's Nonverbal appearance included "Don't fiddle around in your seat, look at your guest, look into the camera, sit up straight." (8.05%).

Uninterpretable statements consisted of less than 4 percent of the data.

These categories apply to advice offered to both prospective talk show hosts and guests. No efforts were made to rank these advice types in terms of sophistication or usefulness; however, the first 3 categories seem to indicate children's attention to the actual content or formulation of the discourse, while

the last 3 capture their awareness of the importance of a natural and flowing dialogue, if only in appearance.

Inter coder agreement on the independent categorization of advice units was calculated on 15 percent of the data, selected at random, and was found to be 97%.

RESULTS

To insure that IQ, language ability, and reading and math achievement were equivalent for subjects across grades and conditions, analyses of variance for unequal cell sizes were performed on PPVT scores, scores from the two CELF subtests, reading stanines and math stanines, using a group (2) by grade (2) by condition (2) design. The 2-level factor for grade was formed by combining subjects in grades 2, 3, and 4 (mean age: 8.94 years; S.D. = 0.97) and subjects in grades 5, 6, 7, and 8 (mean age = 12.12; S.D. = 1.72). A main effect for group, $F(1, 157) = 8.07$, $p < .005$), on the language production subtest (Formulated Sentence Scores) indicated that LD boys received lower scores than non-disabled boys; however, no group differences were found for the language comprehension measure (Processing Word and Sentence Structure).

Further, these analyses revealed the expected main effects for reading stanine, $F(1, 91) = 29.02$, $p < .0001$, and math stanine, $F(1, 81) = 35.22$, $p < .0001$. There were no significant main effects or interactions for the other variables.

For the analyses of both the conversational variables and the metaconversational responses, analyses of variance for unequal cell sizes using the least squares solution were computed to test the effects of grade, group, and condition. Planned comparisons of the group by condition means were also performed;

following the suggestion of Searle, Speed, & Milliken (1980), these contrasts were made between marginal rather than expected means, due to the unbalanced design. For other significant interactions Bonferroni's adjustment was used to detect differences among means.

Conversational Behaviors

In addition to the modeled conversational behaviors, i.e., Process questions, Contingent responses and Comments, and Conversational Devices, other Host dependent variables were the relative frequency of Talk, Questions, Question types, and Modeled topics. Guest dependent variables of interest were the relative frequency of Elaborated responses for each question type, and requests for Clarification.

Host Variables

Amount of Talk. The analysis of variance for the number of statements produced by the host relative to the total number of statements produced by the dyad revealed a significant main effect for grade, $F(1, 96) = 12.23$, p .0007. Younger hosts accounted for a greater percentage of statements than did older hosts ($\bar{X}$ = 50.3% vs. 44.3%). In addition, there was a significant interaction for group by condition, $F(1, 96) = 5.58$, $p < .02$. An examination of the least square means revealed that LD children in the monologue condition contributed less talk to the conversation than did nondisabled children in that condition ($\bar{X}_{LD}$ = 43.71% vs. $\bar{X}_{NLD}$ = 49.22%; $p < .03$; however, there were no group differences in the dialogue condition ($\bar{X}_{LD}$ = 49.36% vs. $\bar{X}_{NLD}$ = 46.66%).

Questions. The analysis of the percentage of Host statements which were Questions revealed only a main effect for condition, $F(1, 96) = 5.76$, $p < .02$,

showing that children in the dialogue condition produced fewer questions than did children in the monologue condition ($\bar{X}_{Dialogue}$ = 52.31% vs. $\bar{X}_{Monologue}$ = 60.44%).

Analyses were performed on the percentage of each question type, based on the frequency of each question type divided by the total number of questions produced. For the modeled variable, percentage of Process questions, a main effect for grade, $F(1, 96) = 10.38$, $p < .002$, revealed that older children were more likely to produce Process questions than younger children ($\bar{X}$ = 14.58% vs. $\bar{X}$ = 23.18%). Planned comparisons of the group by condition means indicated that, as predicted, LD children in the monologue condition produced a smaller percentage of Process questions than the nondisabled children ($\bar{X}_{LD}$ = 12.9% vs. $\bar{X}_{NLD}$ = 21.2%, $p < .03$), there were no group differences in the dialogue condition ($\bar{X}_{LD}$ = 20.3% vs. $\bar{X}_{NLD}$ = 21.1%).

Conversational Devices. Analyses of the percentage of speaking turns which were introduced with Conversational Devices, a modeled behavior, revealed no significant main effects or interactions.

Comments. A main effect for condition, $F(1, 96) = 4.09$, $p < .05$, and a grade by condition interaction, $F(1, 96) = 6.46$, $p < .02$, for the variable relative frequency of Comments to total statements indicated that the dialogue condition facilitated younger children's production of Comments ($\bar{X}_{Monologue}$ = 6.40% vs. $X_{Dialogue}$ = 17.73%, $p < .002$), but did not influence the older children's use of Comments ($\bar{X}_{Monologue}$ = 10.02 vs. $\bar{X}_{Dialogue}$ = 8.74%). Planned comparisons of the group by condition means revealed that the dialogue condition increased LD children's production of Comments ($\bar{X}_{Dialogue}$ = 13.11% vs. $\bar{X}_{Monologue}$ = 6.19%, $p < .05$), but had no effect on the nondisabled children's performance

($\bar{X}_{Dialogue}$ = 13.36% vs. $\bar{X}_{Monologue}$ = 10.23%).

Contingent Responses. Similar condition ($F(1, 96) = 11.63$, $p < .001$), and grade by condition effects ($F(1, 96) = 4.71$, p .04) emerged from the percentage of confirmations which were Contingent on the preceding response. Younger children in the dialogue condition were more likely to produce Contingent confirmations than their age-mates in the monologue condition ($\bar{X}_{Dialogue}$ = 48.91% vs. $\bar{X}_{Monologue}$ = 30.60% $p < .0001$); however, the dialogue did not influence the older children's use of Contingent responses ($\bar{X}_{Dialogue}$ = 37.93% vs. $\bar{X}_{Monologue}$ = 33.90%).

Modeled Topics. No main effects or interactions were significant in the analysis of the percentage of statements which mentioned the topics discussed in the modeling audiotapes. For all children, approximately 12.33% of their statements included modeled topics ($\bar{X}_{Dialogue}$ = 10.82% vs. $\bar{X}_{Monologue}$ = 13.79%).

Guest Variables

Elaborated Responses. The percentage of Elaborated guest responses to host questions was calculated separately for each question type.

The analysis of variance of the percentage of Elaborated responses to Choice questions indicated a main effect for grade, $F(1, 96) = 18.21$, $p < .0001$, reflecting the finding that guests of older children were more likely to elaborate on responses to Choice questions than younger children ($\bar{X}$ = 62.18% vs. $\bar{X}$ = 37.97%). Planned comparisons of the group by condition means indicated that, in the monologue condition, LD hosts were more likely than nondisabled hosts to elicit Elaborated responses to their Choice questions ($\bar{X}_{LD}$ = 60.34% vs. $\bar{X}_{NLD}$ = 49.49%); however, no group differences were present in the dialogue condition

($\bar{X}_{LD}$ = 47.93% vs. $\bar{X}_{NLD}$ = 49.49%).

The analysis of the Elaborated responses to Product questions revealed only a main effect for grade, $F(1, 96) = 10.87$, $p < .002$, indicating that their use increased from 17.08% to 35.89%.

Similarly, the percentage of Elaborated responses to Process questions was also found to increase with grade, $F(1, 96) = 5.74$, $p < .02$, ($\bar{X}$ = 12.07% vs. $\bar{X}$ = 25.23%). Further, a group by grade by condition interaction, $F(1, 96) = 15.30$, $p < .0002$, revealed condition effects only for older children; interestingly, the dialogue condition increased the production of Elaborated responses to Process questions by guests of nondisabled children ($\bar{X}_{Dialogue}$ = 46.46% vs. $\bar{X}_{Monologue}$ = 12.20%, $p < .002$). In contrast, the dialogue condition actually depressed the use of Elaborated responses by guest of LD children ($\bar{X}_{Dialogue}$ = 10.22% vs. $\bar{X}_{Monologue}$ = 32.02%, $p < .05$).

Requests for Clarification. Main effects for grade, $F(1,96) = 4.30$, p .05, and group, $F(1, 95) = 11.80$, $p < .0009$ were found for the frequency of requests for Clarification to total statements made by guests. Guests of older children were more likely to request Clarification than guests of younger children ($\bar{X}$ = 4.01% vs. $\bar{X}$ = 2.45%). LD children elicited more requests for Clarification from their guests ($\bar{X}$ = 4.53%) than did nondisabled children ($\bar{X}$ = 1.94%). Further, planned comparisons of the group by condition means revealed that this group difference was especially apparent in the dialogue condition ($\bar{X}_{LD}$ = 5.42% vs. $\bar{X}_{NLD}$ = 1.88%, $p < .002$, in the dialogue condition, as compared to $\bar{X}_{LD}$ = 3.64% vs. $\bar{X}_{NLD}$ = 1.99% in the monologue condition).

Metaconversational Responses

Dependent variables were the relative frequency of each advice type produced by host and guest children. Advice types adressed to prospective hosts and guest were examined separately.

Advice Offered by Host Children

To Host Targets. The analysis of variance of the percentage of advice units which were categorized as Preparation advice indicated a group by condition interaction, $F(1, 94) = 4.67$, $p < .04$. In the monologue condition, LD children were less likely to offer Preparation advice than nondisabled children ($\bar{X} = 5.45\%$ vs. $\bar{X} = 23.36\%$, $p < .04$); however, there were no group differences in the dialogue condition ($\bar{X}_{LD} = 23.62\%$ vs. $\bar{X}_{NLD} = 15.39\%$).

The analysis of variance of the percentage of Fluency statements resulted in a grade by group interaction, $F(1, 94) = 5.52$, $p < .02$. Older LD children were less likely to offer Fluency advice than were older nondisabled children ($\bar{X}_{LD} = 10.42\%$ vs. $\bar{X}_{NLD} = 25.93\%$), whereas no group differences emerged for the younger children ($\bar{X}_{LD} = 14.49\%$ vs. $\bar{X}_{NLD} = 5.21\%$).

For the variable percentage of Affective advice statements offered, LD children were found to produce a greater proportion of this category than nondisabled subjects, $F(1, 94) = 7.41$, $p < .008$ ($\bar{X}_{LD} = 22.42\%$ vs. $\bar{X}_{NLD} = 6.75\%$).

The analysis of the percentage of Nonverbal statements indicated only that the use of this category increased with grade, $F(1, 94) = 4.18$, $p < .05$, ($\bar{X}_{Younger} = 6.24\%$ vs. $\bar{X}_{Older} = 15.85\%$).

To Guest Targets. For the variable percentage of Quantity advice units offered by host children to prospective guests, a group by condition interaction ($F(1, 94) = 3.99$, $p < .05$) indicated that LD children in the dialogue condition produced a

smaller proportion of this advice type than did nondisabled children in this condition ($\bar{X}_{LD}$ = 10.68% vs. $\bar{X}_{NLD}$ = 36.54%): however, no group differences emerged in the monologue condition ($\bar{X}_{LD}$ = 29.11% vs. $\bar{X}_{NLD}$ = 24.60%).

The analysis of the percentage of Quality advice statements revealed a grade by condition interaction, $F(1, 94) = 4.38$, $p < .04$, reflecting the finding that the dialogue condition decreased the use of this advice type for older subjects ($\bar{X}_{Monologue}$ = 46.42% vs. $\bar{X}_{Dialogue}$ = 17.31%, $p < .01$), but had no effect on the younger children ($\bar{X}_{Monologue}$ = 19.77% vs. $\bar{X}_{Dialogue}$ = 23.72%). Planned comparisons of the group by condition means showed that the dialogue condition also decreased LD children's awareness of this category ($\bar{X}_{Monologue}$ = 37.82% vs. $\bar{X}_{Dialogue}$ = 16.03%, $p < .05$), but did not influence the nondisabled children ($\bar{X}_{Monologue}$ = 28.37% vs. $\bar{X}_{Dialogue}$ = 25.00%).

A main effect for group, $F(1, 94) = 5.91$, $p < .02$, for the analysis of the percentage of Affective statements indicated that LD hosts were more likely than nondisabled hosts to give Affective Advice to their guests ($\bar{X}_{LD}$ = 15.12% vs. $\bar{X}_{NLD}$ = 4.14%). However, planned comparisons indicated that LD children in the dialogue condition were more likely than the other three groups to mention this advice type ($\bar{X}_{Dialogue}$ = 21.74% vs. $\bar{X}_{Monologue}$ = 8.49% for the LD groups and $\bar{X}_{Dialogue}$ = 4.81% vs. $\bar{X}_{Monologue}$ = 3.47% for the nondisabled children.

The analysis of the percentage of Fluency advice units offered resulted in a group by condition interaction, $F(1, 94) = 6.39$, $p < .02$. This reflected the findings that, for the monologue condition, LD subjects were less likely to offer Fluency advice than nondisabled children ($\bar{X}_{LD}$ = 3.21% vs. $\bar{X}_{NLD}$ = 25.50%, p .005; however, there were no group differences in the dialogue condition ($\bar{X}_{LD}$ = 10.51% vs. $\bar{X}_{NLD}$ = 15.60%).

Finally, the analysis of variance for the variable percentage of Non-verbal advice units revealed a main effect for condition, $F(1, 94) = 4.24$, $p < .05$,

indicating that children's awareness of Nonverbal advice was greater in the dialogue condition ($\bar{X}$ = 10.75%) than in the monologue condition ($\bar{X}$ = 2.87%). However, planned comparisons of the group by condition means revealed that the condition effect was significant only for the LD children. The dialogue increased the LD children's awareness of Nonverbal behavior ($\bar{X}_{Monologue}$ = 2.56% vs. $\bar{X}_{Dialogue}$ = 14.32%), but did not influence the nondisabled children ($\bar{X}_{Monologue}$ = 3.18% vs. $\bar{X}_{Dialogue}$ = 7.18%).

Advice offered by Guest Children

The analyses of the relative frequency of each advice type offered by guest children to prospective hosts and guests revealed significant effects only for one variable, the percentage of Preparation advice units directed to prospective guests. Main effects for grade, $F(1, 95) = 13.93$, $p < .0003$, and condition, $F(1, 95) = 7.41$, $p < .008$, and a grade by condition interaction, $F(1, 95) = 4.29$, $p < .05$, indicated that the dialogue condition increased the use of this category for older children ($\bar{X}_{Monologue}$ = 9.82% vs. $\bar{X}_{Dialogue}$ = 38.14%, p .001) but had no effect on the younger children ($\bar{X}_{Monologue}$ = 0.00% vs. $\bar{X}_{Dialogue}$ = 3.85%).

DISCUSSION

The results of this investigation extend the research literature on conversational competence in normal as well as learning disabled children in several ways. First, most research on the acquisition of conversational skills is limited to the preschool and early elementary school years (e.g., Bates, 1976; Ervin-Tripp & Mitchell-Kernan, 1971; Garnica & King, 1979; Keenan, 1974; Mishler, 1975; Ochs & Schiefellin, 1979). However, the age-related effects found in the data on conversational behaviors suggest that the ability to sustain a dialogue continues to develop between the primary and middle school years. Specifically, older children in the host role reduced their contribution of [illegible] relative to their conversational partners and were more likely to produce [illegible] questions. Concomitantly, their guests' greater involvement in the interaction is demonstrated by the findings that they were more willing to elaborate on their responses to all question types and were more likely to request clarification. In general, these results portray the dialogues of older dyads as both more cooperative and more responsive than those of younger children.

Further, the condition effects are consistent with previous studies showing the efficacy of models in enhancing the communicative skills of normal children (Ironsmith & Whitehurst, 1978; Cosgrove & Patterson, 1978; Sonnenschein & Whitehurst, 1980; Whitehurst, 1976; Whitehurst & Merkur; 1977; Shantz & Wilson, 1972). Host children in the dialogue condition directed fewer questions to their guests than did monologue hosts. Further, for younger children, the dialogue condition was successful in increasing their use of two modeled behaviors, Comments and Contingent responses.

Finally, there are no previous investigations of children's awareness of conversational skills necessary to spontaneous dyadic interaction. The

results of these analyses demonstrate that children are able to be introspective about their conversational knowledge. Further, their insights into what factors lead to a cooperative dialogue are fairly sophisticated, in that they appear to make the same distinction between conversational content and conversational form which has been discussed by researchers who study conversational interaction (e.g., Grice, 1975; Keenan & Schieffelin, 1976). Most of the children's responses indicated their awareness of the importance of the content and maintenance of the exchange of talk, which may in part reflect the experimental instructions. However, they were also able to verbalize their recognition of those surface aspects of conversation which are independent of the propositions exchanged, i.e., those paralinguistic features which facilitate a smooth and finely calibrated dialogue.

Further, older children's perceptions of good conversational skills were influenced by the modeling condition. Older hosts in the dialogue condition were less likely than their monologue controls to mention the content of their guests' responses as an important aspect. Also, guests of older dialogue hosts were much more likely to recommend the need for preparation to improve the guest's performance. One explanation for this finding is that both older hosts and LD hosts in the dialogue condition produced more Process questions, which presumably require the guest to give more thought to the formulation of his answer. This may have therefore enhanced these children's awareness of the difficulty of the task.

The primary focus of the research was to test the effects of modeling on LD children's conversational behavior and meta-conversational knowledge. The results suggest that modeling is a effective intervention technique for facilitating children's use of certain conversational strategies. As predicted, LD

children in the monologue (control) condition were less likely than nondisabled subjects to produce Process questions and Comments; however, the dialogue condition was sufficient to increase their use of these behaviors to the level of their nondisabled counterparts. The predictions for the other 2 modeled behaviors, Conversational Devices and Contingent responses, were not supported; the LD children did not differ from nondisabled children in their use of these behaviors and, therefore, no training was necessary. However, as shown in Table 2, LD children were as able as nondisabled children to profit from the modeling of Contingent responses. Further, a by-product of the modeling of these conversational behaviors was an increase in LD children's contribution of talk to the dyadic interaction.

The effectiveness of modeling as a method for conversational intervention is striking for several reasons. First, both LD and younger children were able to abstract three conversational rules through observation of a model who presented very few examples of each behavior. In fact, the complexity of these behaviors in underscored by the fact that none had a typical syntactic or semantic structure, e.g., Process questions were phrased as "Why...," "What do you think about...", and "What would you do...". Further, these children increased their use of these skills in the absence of direct instruction, behavioral rehearsal, or incentives. Finally, the finding that fewer than 15% of all children's statements relied on topics presented by the model suggests they did not merely imitate the remarks made by the dialogue model. Instead, they actually induced the modeled rules and applied them appropriately to novel content.

The fact that these skills were immediately acquired without laborious remediation suggests that the modeling intervention was not teaching children

new behaviors, but rather demonstrating when to mobilize existing ones. These findings are consistent with the hypothesis that LD children may have certain skills in their conversational repertoire but fail to perceive the social situation as one in which the use of these behaviors is desirable. In light of their difficulties in peer acceptance, they may be reluctant to take control of the dialogue by directing open-ended questions to their guests, or to spontaneously offer their own opinions or interpretations of their guests' remarks. However, the model appeared to induce LD children to recognize these behaviors as situationally appropriate, and they were then readily able to call upon their linguistic facility to generate these conversational strategies.

Thus, the effects of modeling on the hosts' conversational performance implicates social cognitive differences as a primary source of differences in conversational style between LD and normally achieving peers. However, the results of the analyses of guest children's contributions to the conversation present a more complicated picture. The finding of Bryan, Donahue, Pearl & Sturm (1981) that LD children were less likely than nondisabled children to elicit elaborated responses to their questions was not supported. Inexplicably, LD children in the control condition were more likely to elicit elaborated responses to their Choice questions than did nondisabled hosts. Further, the dialogue condition actually decreased LD guests' use of elaborated responses to the level of the guests of the nondisabled subjects. A similar pattern of findings emerged for older guests' production of elaborated responses to Process questions. Although the dialogue condition increased the likelihood that guests would elaborate in response to the Process questions of nondisabled hosts, the reverse was true for LD hosts. Relative to the monologue condition, the dialogue

condition depressed the use of Elaborated responses to Process questions by guests of LD hosts.

Thus, although modeling facilitated the use of certain conversational skills in LD hosts, there did not seem to be equally positive changes in guests' performance. Instead, these results may suggest that, as LD children changed the form of their questions to match the Process questions of the model, they may have also caused the content to be more difficult to comprehend or to elaborate. Another explanation is that, in their efforts to produce Process questions which place demands on their listeners to give lengthy responses, the older LD children may have instead generated questions which were too vague or unconstrained to answer in a extended way. Both explanations point to the subtle but significant deficits in productive language ability found in this group of LD youngsters as one source of these findings.

Further evidence that mild problems in semantic and syntactic structure may have interfered with these children's formulation of coherent questions and comments is provided by the results that LD children elicited more requests for clarification from their guests than did nondisabled children, and this difference was especially apparent in the dialogue condition.

In light of the findings for the guest variables, an alternative interpretation of LD children's unassertive conversational style may be warranted. Perhaps LD children are unwilling to use the full range of their conversational skills because they are aware, at some level, that some strategies will tax their productive language abilities. Their experiences of communicative interaction with others may have shown them that the conversation flows more smoothly if they restrict themselves to asking questions which are easy to answer (i.e., Choice and Product Questions), and avoid spontaneous comments. Previous studies

suggest a similar pattern, in that learning disabled children appear to seek out opportunities for participating in the conversation which provide rich contextual support. For example, a referential communication study showed that learning disabled children had no difficulty interpreting and responding to even indirect requests for clarification (Pearl et al., 1981b). On a group decision-making task where learning disabled children generally played an unassertive role, they were as likely as nondisabled children to initiate topics which had been made available to the group, and were more likely to respond to requests for opinion (Bryan, Donahue, & Pearl, 1981). In general, these children appear to be eager to fulfill conversational responsibilities, if the content provides an obvious and linguistically undemanding means for doing so.

One line of evidence which can lend support to the latter explanation, i.e., that learning disabled children's conversational style is influenced by their awareness of their productive language deficiencies, is the examination of differences in metaconversational knowledge between normal and learning disabled children. First, these findings suggest that learning disabled children recognize their difficulties in conversational interaction. The result that LD children were more likely than normally achieving subjects to be concerned about hosts' emotional states (e.g., "Don't be nervous") suggests that they perceived the conversational task as a stressful one. However, older LD boys were not as aware of the importance of fluency as nondisabled children, a finding which hints at underlying language deficits. Further, the finding that the dialogue condition increased LD hosts' recognition of their need to prepare themselves for the role of talk show host suggests that this condition magnified the differences between their conversational style and that of the model.

Even more striking is the evidence that LD children were sensitive to the effects of the modeling condition on their guests' performance. LD subjects in the dialogue condition were less likely than their monologue controls to mention the quality and quantity of their guests' responses as relevant to a successful interaction, perhaps because the model provided the LD hosts with techniques to take control of these aspects of the conversation. Instead, the dialogue condition heightened their awareness of their guests' responsibility to maintain the surface form of the conversation, i.e., of their affective states, fluency and nonverbal appropriateness. These findings parallel the behavioral data that guests of LD children in the dialogue condition produced fewer elaborated responses and more requests for clarification. In general, it appears that after exposure to the dialogue model, some features of the LD children's conversational style caused their guests to feel less comfortable in their role. Interestingly, this interpretation is consistent with previous studies showing that the nonverbal behavior of normally achieving children while interacting with a LD classmate is viewed as more hostile and less relaxed than that of children interacting with a nondisabled child (Bryan, Bryan, & Sonnefeld, in press; Bryan, Donahue, Pearl, & Sturm, 1981).

In summary, these data provide some support for the hypothesis that LD children are aware that their attempts to gain conversational control are met with subtle resistance from their peers, probably because of their difficulty in understanding and expanding on the LD children's remarks. However, the degree to which these children's unassertive conversational style is an attempt to compensate for their linguistic deficits rather than their perceptions of the social situation still remains speculative.

Of course, these conclusions are not intended to posit social-cognitive factors and linguistic skills as competing or mutually exclusive explanations of LD children's conversational style. Clearly, the development of these two domains of knowledge affects each other in intricate and as yet undetermined ways (Shatz, in press). Instead, the present study's findings highlight the need to integrate the training of language structure with the teaching of conversational skills. For example, drilling a child on the syntactic rules for formulating WH-questions will be incomplete without providing opportunities for practicing these question types in a conversational setting. In light of these goals, modeling may be an especially valuable technique, since it has been demonstrated to be effective in increasing both syntactic and conversational skills.

A final implication of these findings relates to the issues of assessment of conversational competence and evaluation of children's progress after a remedial program has been implemented. As these data illustrate, children's increased use of target conversational behaviors is not sufficient evidence that they are more effective conversational partners. In light of the findings that the dialogue condition appeared to negatively affect the performance of LD children's guests, an argument could be made that a more socially meaningful test of post-intervention gains must include an assessment of their impact on the conversational behavior of those who interact with the child. In this sense, no language intervention program should be considered effective unless it enhances a child's opportunities to engage in satisfying and cooperative verbal interactions with others.

APPENDIX A

DIALOGUE SCRIPT

L: What's your favorite movie?

R: Umm...the Empire Strikes Back.

L: Okay. What made you like that movie so much?

R: Well, I liked the people in it, like Luke Skywalker and Chewbacca... And it had a good story. I liked it even better than Star Wars.

L: You did? Why did you like it better?

R: Well, there were more battles and more exciting things happened.

L: Oh. Okay. How do you feel about television programs compared to movies?

R: Well, I like 'em both. Some TV shows are really good, but a lot of 'em are pretty boring.

L: Suppose you were in charge of television. What things would you change to make it better?

R: Well...umm...you know, there are some good shows for little kids, like Sesame Street and stuff like that...

L: Uh-huh.

R: And then there are a lot of shows for grown-ups, like movies and news programs. But I don't think there are enough shows for kids our age. And I don't think that's fair.

L: Yeah, I don't think so either. But what kinds of shows would you put on for kids?

R: Well, more funny shows like Happy Days and Mork & Mindy.

L: Yeah, Mork is really funny. What other shows do you like?

R: Umm...I like Eight is Enough and the Dukes of Hazzard....and cartoons.

L: Okay. What do you think about commercials?

R: Most of 'em are terrible. They shouldn't have so many commercials on TV.

L: Oh yeah, especially those boring ones that they show over and over. What else would you do to make TV better?

R: Well, I'd have more interesting shows, like about animals...And I'd put the good shows on earlier so we could watch them after school.

L: Yeah, that's a great idea.

Appendix (cont.)

MONOLOGUE SCRIPT

My favorite movie is The Empire Strikes Back, because I liked the people in it, like Luke Skywalker and Chewbacca. And it had a good story. I liked it even better than Star Wars, becasue there were more battles and more exciting things happened.

I like movies and television programs about the same. Some TV shows are really good, but a lot of 'em are pretty boring.

If I were in charge of television, I'd change a lot of things to make it better. Like, you know, there are some good shows for little kids, like Sesame Street and stuff like that. And then there a lot of shows for grown-ups, like movies and news programs. But I don't think there are enough shows for kids our age. And I don't think that's fair.

So I'd put on more funny shows for kids, like Happy Days and Mork and Mindy. And I like Eight is Enough and The Dukes of Hazzard and cartoons, too.
I think most commercials are terrible. They shouldn't have so many commercials on TV.

And I'd put on more interesting shows, like about animals...And I'd put the good shows on earlier so we could watch them after school.

Acknowledgments

A version of this paper was presented at the Boston University Conference on Language Development, Boston, October, 1982. Preparation of this report was supported by a research contract from the Office of Special Education, Department of Education (US HEW OE 300 800 621) with the Chicago Institute for the Study of Learning Disabilities, College of Education, University of Illinois at Chicago. The authors are grateful to Ara Schwartz for her assistance in coding the data and to Allen Herzog for conducting the data analyses.

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TABLE I

	N	AGE (YEARS)	IQ	READING STANINE	MATH STANINE	PPVT IQ	LANGUAGE COMPREHENSION	LANGUAGE PRODUCTION
LD	52	10.48 (1.84)	101.2 (9.6)	4.67 (1.44)	4.77 (1.33)	111.4 (16.14)	43.21	39.43
NLD	52	10.59 (2.37)	106.2 (8.5)	6.13 (1.27)	6,63 (1.55)	115,0 (12.91)	43.46	45.85

Table I: Group means and standard deviations (in parentheses) for subject characteristics.

TABLE 2

GROUP X CONDITION MEANS FOR MODELED CONVERSATIONAL BEHAVIORS

		Monologue	Dialogue
Host Process Questions:	LD	12.9%	20.3%
	NLD	21.2	21.1
Host Conversational Devices:	LD	19.4	24.6
	NLD	21.9	23.9
Host Contingent Responses:	LD	30.7	44.4
	NLD	33.8	42.5
Host Comments:	LD	6.2	13.1
	NLD	10.2	13.4